

Ultra™ 112

operating guide

PEAVEY®





Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Risk of electrical shock – DO NOT OPEN!

CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.



Este símbolo tiene el propósito de alertar al usuario de la presencia de "(voltaje) peligroso" que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto.

PRECAUCION: Riesgo de corrientazo – No abra.

PRECAUCION: Para disminuir el riesgo de corrientazo, no abra la cubierta. No hay piezas adentro que el usuario pueda reparar. Deje todo mantenimiento a los técnicos calificados.

ADVERTENCIA: Para evitar corrientazos o peligro de incendio, no deje expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea más advertencias en la guía de operación.



Ce symbole est utilisé pour indiquer à l'utilisateur la présence à l'intérieur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions sur l'utilisation et l'entretien (service) de l'appareil dans la littérature accompagnant le produit.

ATTENTION: Risques de choc électrique – NE PAS OUVRIR!

ATTENTION: Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien à un personnel qualifié.

AVERTISSEMENT: Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplémentaires situés dans le guide.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.



Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

VORSICHT: Risiko – Elektrischer Schlag! Nicht öffnen!

VORSICHT: Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

ACHTUNG: Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

ENGLISH

Ultra™ 112 Features

- All-tube design
- Four 12AX7 preamp tubes
- Two 6L6GC output tubes
- 60 watts RMS @ 4, 8, or 16 ohms
- Three switchable channels
- Master Reverb
- Low-level effects loop
- Master level control
- Three-position resonance switch

Clean Channel

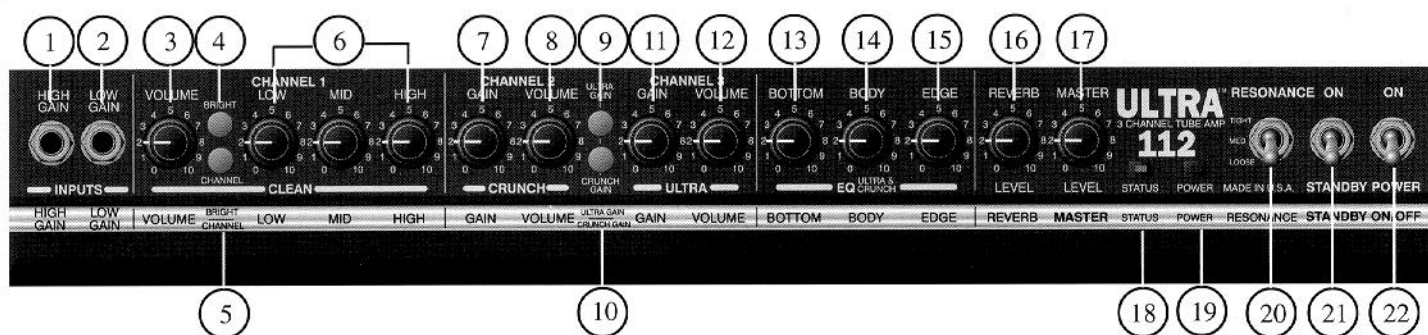
- Volume control
- Push Bright
- Three-band EQ

Crunch & Ultra Channels

- Pre & post gain
- Gain boost switch
- Three-band EQ

The new Ultra 112 all-tube, 60 watt guitar combo amp is designed for maximum tonal flexibility and power. This three-channel amp has features and tone rivaling amps 2 or 3 times its price.

Dial in any degree of Clean, Crunch, or Lead with the amp's three channels and switch among them from the footswitch. Peavey's patented, three-way Resonance switch tailors the bottom end to your speaker cabinet and room environment.



FRONT PANEL FEATURES

HIGH GAIN INPUT (1)

Used for most electric guitars. It is 6 dB louder than the low gain input.

LOW GAIN INPUT (2)

Provided for instruments that have extremely high outputs, which can result in overdriving (distorting) the High Gain input. If both inputs are used simultaneously, the output levels are the same (both are low gain).

VOLUME (3)

Controls the overall volume level of the Clean channel.

BRIGHT SWITCH (4)

Provides a preset boost to treble frequencies. To activate, depress the switch to its "in" position. The Bright function affects only the Clean channel.

CHANNEL SELECT SWITCH (5)

Allows selection of the Ultra or Clean channel. The "out" position selects the Clean channel.

NOTE: Channel selection may also be accomplished by the remote footswitch. If remote foot selection is desired, the channel switch must be in the "in" position.

LOW MID, AND HIGH EQ (6)

Passive tone controls that regulate the high, mid and low frequencies.

CRUNCH GAIN CONTROL (7)

Controls the input volume level of the channel.

CRUNCH VOLUME (8)

Controls the overall volume level of the channel. The final level adjustment should be made after the desired sound has been achieved.

ULTRA GAIN SWITCH (9)

Boosts the overall system gain of the Ultra channel. Depress to the "in" position to activate.

CRUNCH GAIN SWITCH (10)

Boosts the overall system gain of the Crunch channel. Depress to "in" position to activate.

ULTRA GAIN CONTROL (11)

Controls the input volume level of the channel.

ULTRA VOLUME (12)

Controls the overall volume level of the channel. The final level adjustment should be made after the desired sound has been achieved.

BOTTOM (13)

An active tone control (peak/notch, +/- 15 dB) that varies the low-frequency boost or cut.

NOTE: This control is not functional on the clean channel.

BODY (14)

An active tone control (peak/notch, +/- 15 dB) that varies the mid-frequency boost or cut.

NOTE: This control is not functional on the Clean channel.

EDGE (15)

An active tone control (shelving type, +/- 15 dB) that varies the high-frequency boost or cut.

NOTE: This control is not functional on the Clean channel.

REVERB LEVEL (16)

Reverberation is an echo effect. Rotate clockwise to increase the effect. Remote footswitch can control on/off.

MASTER LEVEL (17)

Controls the overall volume level of the system. Once a desired balance of the Clean, Crunch, and Ultra channels is achieved, the entire system level may be increased or decreased with the master volume level control.

STATUS LED (18)

Illuminates when amp is on. Does not illuminate when on stand-by.

POWER LED (19)

Illuminates when AC power is being supplied to the amp.

RESONANCE SWITCH (20)

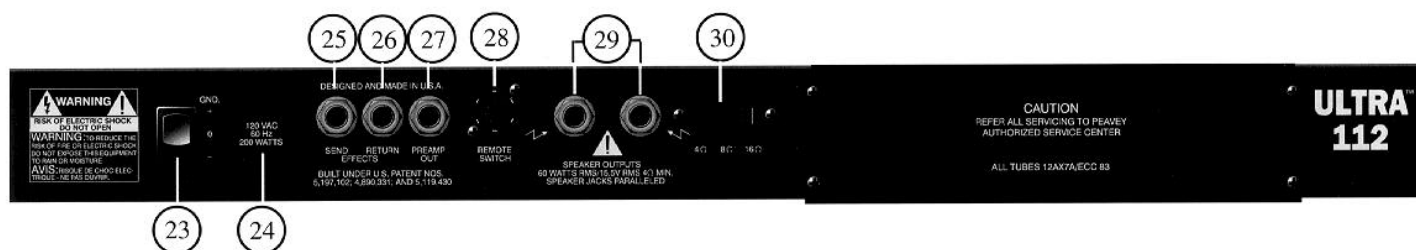
Used to fine tune the low-frequency range of the speaker enclosure by varying the damping factor of the amplifier between three presets.

STANDBY SWITCH (21)

Allows amp to be placed in standby or active mode. In standby mode, the tubes remain hot but the amplifier is not operational.

POWER SWITCH (22)

Switch to "on" position to turn on. The red power LED will illuminate, indicating power is being supplied to the unit.



BACK PANEL FEATURES

GROUND SWITCH (23)



Three-position, rocker-type switch which, in most applications, should be operated in its center (zero) position. There may be some situations when audible hum and/or noise will come from the loudspeaker. If this occurs, position the ground switch to either positive (+ or -), or until the noise is minimized. For export (220-240V) units, the ground switch is replaced by a 220-230B/240V selector switch.

NOTE: Should the noise problem continue, consult your authorized Peavey Dealer, the Peavey factory, or a qualified service technician. The ground switch is not functional on 220-230/240 volt models.

LINE CORD - 120V PRODUCTS ONLY (24)



For your safety, we have incorporated a 3-wire line (mains) cable with proper grounding facilities. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the equipment without proper grounding facilities, suitable grounding adaptors should be used. Less noise and greatly reduced shock hazard exist when the unit is operated with properly grounded receptacles.

EFFECTS SEND (25)

Output for supplying signals from external effects or signal processing equipment.

EFFECTS RETURN (26)

Input for returning signals from external effects or signal processing equipment.

PREAMP OUT (27)

The Preamp Out can be used to route the amplified signal to a mixing console, tape recorder, etc. Using a shielded cable, connect the Preamp Output to the input of a tape recorder, mixer, etc. This patch does not affect the operation of the amplifier.

REMOTE FOOTSWITCH JACK (28)

Provided for the connection of the supplied remote footswitch. The footswitch is used to select the Ultra channel, Crunch channel, or Clean channel and Reverb defeat.

SPEAKER OUTPUTS (29)



Paralleled 1/4" output jacks for connecting speaker enclosure(s) to the amplifier (minimum is 4 ohms). When using more than one enclosure, be sure to calculate the total impedance and set the impedance switch (30) accordingly. (See below selection on Impedance Selector Switch.)

IMPORTANT: Use only high-quality unshielded cable for speaker connections.

IMPEDANCE SELECTOR SWITCH (30)

Used to select the appropriate impedance of the speaker enclosure(s). If two enclosures of equal impedance are used, the switch should be set at one half of that value (i.e. for two 16 ohms enclosures, set switch to 8 ohms; for two 8 ohms enclosures, set switch to 4 ohms.)

SPECIFICATIONS

POWER AMPLIFIER SECTION

Two 6L6GCs with 12AX7 driver

Rated Power & Load:

60 W RMS into 16, 8, or 4 ohms

Power @ Clipping:

(typically @ 5% THD, 1 kHz, 120 V AC line)

60 W RMS into 16, 8, or 4 ohms

(Bias must be reduced to measure)

Frequency Response:

+0, -2 dB 50 Hz to 20 kHz @ 100 W RMS into 8 ohms

Hum & Noise:

Greater than 76 dB below rated power

Power Consumption:

Domestic: 200 W, 50/60 Hz, 120 VAC

Export: 200 W, 60 Hz, 220-230/240 VAC

Dimensions & Weight:

20" (H) x 23.375" (W) x 11.25" (D)

53.7 lbs.

PREAMP SECTION

Four 12AX7s

The following specs are measured @ 1 kHz with the controls preset as follows:

Low & High EQ @ 10, Mid EQ @ 0

Bright out

Ultra & Crunch Posts @ 10

Gain switches out

Bottom, Body, & Edge @ 0 dB

Reverb level @ 0

Master level @ 10

(Nominal levels are with Pre Gain @ 5. Minimum levels are with Pre Gain @ 10.)

Preamp High Gain Input:

Impedance: Very High-Z, 470 K ohm

Ultra Channel: (with Channel Select in)

Nominal Input Level: -46 dBV, 5 mV RMS

Minimum Input Level: -64 dBV, 0.6 mV RMS

(subtract 15 dB with Gain switch in)

Crunch Channel: (Footswitch selected)

Nominal Input Level: -34 dBV, 20 mV RMS

Minimum Input Level: -52 dBV, 2.5 mV RMS

(subtract 15 dB with Gain switch in)

Clean Channel: (with Channel Select out)

Nominal Input Level: -16 dBV, 150 mV RMS

Minimum Input Level: -34 dBV, 20 mV RMS

Maximum Input Level: 0 dBV, 1.0 mV RMS

Preamp Low Gain Input: (-6 dB Pad)

Impedance: High-Z, 44 K ohms

(all levels are increased by +6 dB)

Effects Send:

Load Impedance: 47 K ohms or greater

Nominal Output: -10 dBV, 300 mV RMS

Effects Return:

Impedance: Very High-Z, 470 K ohms

Designed Level: -10 dBV, 300 mV RMS

Preamp Output:

Load Impedance: 47 K ohms or greater

Nominal Output: +10 dBV, 3 V RMS

Remote Footswitch:

Special 3-button unit with LED indicators (supplied)

System Hum & Noise @ Nominal Level:

(Clean channel — 20 Hz to 20 kHz unweighted)

Greater than 74 dB below rated power

(Special noise gate circuitry for Ultra & Crunch)

Equalization: (Clean channel only)

Custom Low, Mid, & High passive-type EQ

Push Bright: +6 dB @ 2 kHz

Voicing: (Ultra & Crunch channels only)

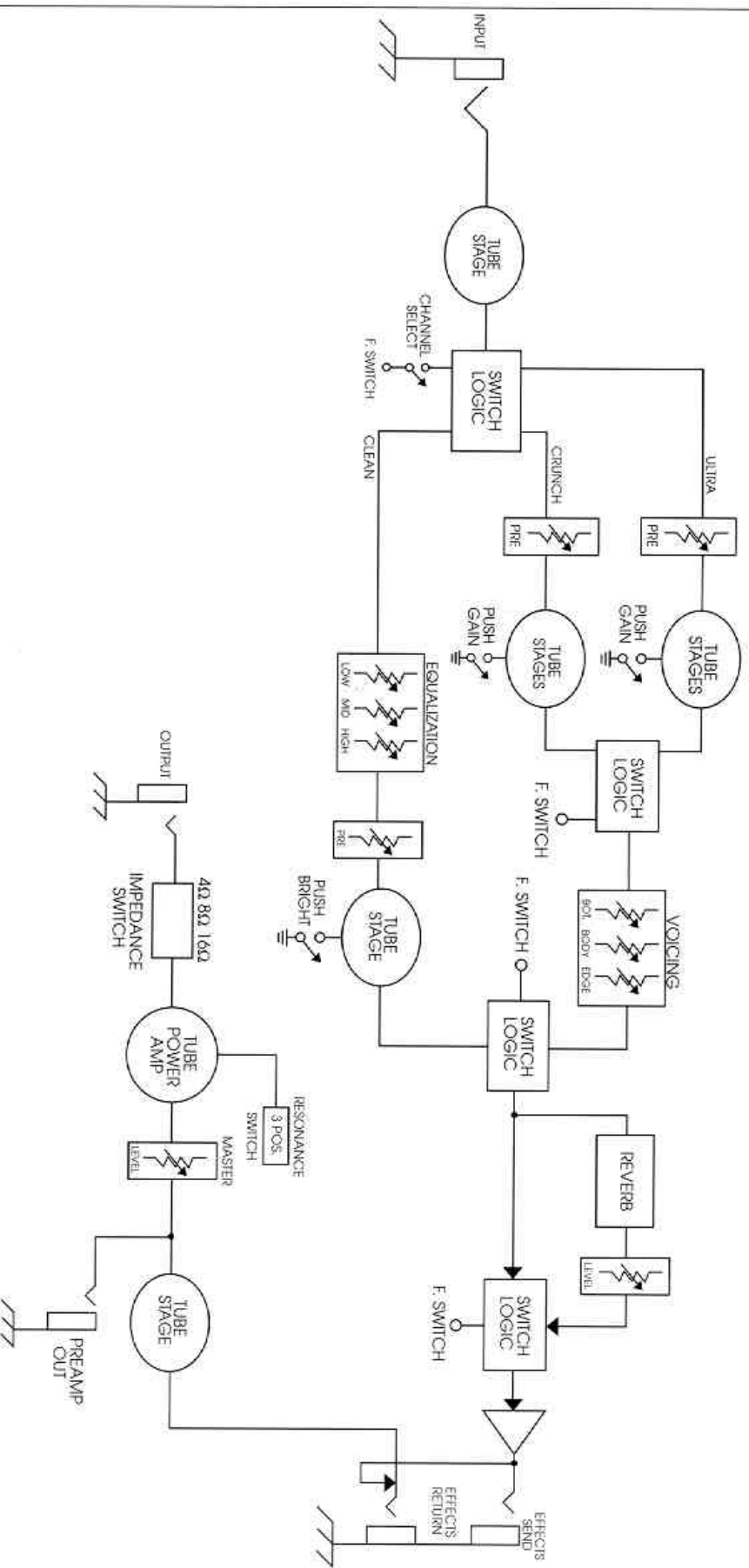
Active Bottom, Body, & Edge EQ

Push Gain: Increases gain in Ultra & Crunch channels



*Due to our efforts for constant improvements,
features and specifications listed herein are subject to change without notice.*

Flow Chart



This flow chart illustrates signal flow within the unit. In order to thoroughly understand the unit's functions, please study this diagram carefully.

Tone Settings



Adjust for Preference

"OUT"

Adjust for Preference

CLEAN

**MILD
DISTORTION**

METAL



Adjust for Preference

"OUT"

Adjust for Preference

**COUNTRY
CLEAN**

**MILD RHYTHM
DISTORTION**

**COUNTRY/ROCK
LEAD**

Tone settings given are general and will vary according to the type of guitar, gauge type of the strings, the type of pickup, and even the type of pick. Personal preference, playing style, and type of music greatly contribute to desired tonality.

THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.
Ces clauses de garantie ne sont valables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixées par le distributeur national et assurées par lui selon la législation en vigueur. •• Diese Garantie ist nur in den USA und Kanada gültig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen. •• Esta garantía es válida solamente cuando el producto es comprado en E.U. continentales o en Canada. Todos los productos que sean comprados en el extranjero, están sujetos a las garantías y servicio que cada distribuidor autorizado determine y ofrezca en los diferentes países.

**PEAVEY ONE-YEAR LIMITED
WARRANTY/REMEDY**

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) year from date of purchase, PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions, and limitations hereinafter set forth:

PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions, and limitations hereinafter set forth.

CONDITIONS, EXCLUSIONS, AND LIMITATIONS OF LIMITED WARRANTIES

These limited warranties shall be void and of no effect, if:

- a. The first purchase of the product is for the purpose of resale; or
- b. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
- c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
- d. The serial number affixed to the product is altered, defaced, or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will:

- a. In the case of tubes or meters, replace the defective component without charge.
- b. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

In order to obtain service under these warranties, you must:

- a. Bring the defective item to any PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product.

If the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.

OR

- b. Ship the defective item, prepaid, to:

PEAVEY ELECTRONICS CORPORATION
International Service Center
326 Hwy. 11 & 80 East
Meridian, MS 39301

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items: If the defect is remedied under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Peavey's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment.

UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES, OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESSED, LIMITED WARRANTIES, AS HEREINABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESSED WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

In the event of any modification or disclaimer of expressed or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

INSTRUCTIONS — WARRANTY REGISTRATION CARD

1. Mail the completed WARRANTY REGISTRATION CARD to:

PEAVEY ELECTRONICS CORPORATION
P.O. BOX 2898
Meridian, MS 39302-2898

- a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Peavey Electronics Corporation.
2. **IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESSES:**
 - a. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.
 - b. Notice of address changes — If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.
3. You may contact Peavey directly by telephoning (601) 483-5365.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following:

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.

Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

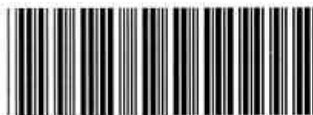
SAVE THESE INSTRUCTIONS!



Features and specifications subject to change without notice.



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